



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/economy

HWD Acquisition, Inc. dba Hurd Windows & Doors
575 South Whelen Avenue
Medford, WI 54451

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Clipped Steel Tube Mullion – L.M.I.

APPROVAL DOCUMENT: Drawing No. 1047B, titled "Clipped Impact & Non-Impact Steel Tube Mullions, sheets 1 through 6 of 6, dated 07/24/01, with revision C1 dated 12/18/14, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA# 11-1021.15 and consists of this page 1 and evidence page E-1, as well as approval document mentioned above.

The submitted documentation was reviewed by Manuel Perez, P.E.



Handwritten signature and date: 7/3/25/15

NOA No. 14-1224.02
Expiration Date: February 14, 2017
Approval Date: April 02, 2015
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No **1047B**, titled "Clipped Impact & Non-Impact Steel Tube Mullions, sheets 1 through 6 of 6, dated 07/24/01, with revision C1 dated 12/18/14, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P.E.

B. TESTS

1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
4) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94
along with marked-up drawings and installation diagram of clipped aluminum mullions, prepared by Certified Testing Laboratory, Inc., Test Reports No. **CTLA-679WF**, dated 10/02/01 with addendum letters dated 11/29/01 and 12/18/01, all signed and sealed by Ramesh Patel, P.E.
(Submitted under NOA No. 01-1012.06)

C. CALCULATIONS:

1. Anchor Calculations and structural analysis, complying with the FBC-2007 and the FBC-2010, prepared by W. W. Schaefer Engineering & Consulting, P.A., dated 10/04/11, signed and sealed by Warren W. Schaefer, P.E.
(Submitted under previous NOA #11-1021.15)

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS

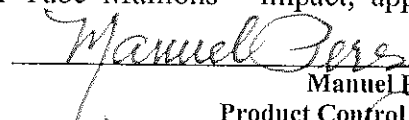
1. None.

F. STATEMENTS

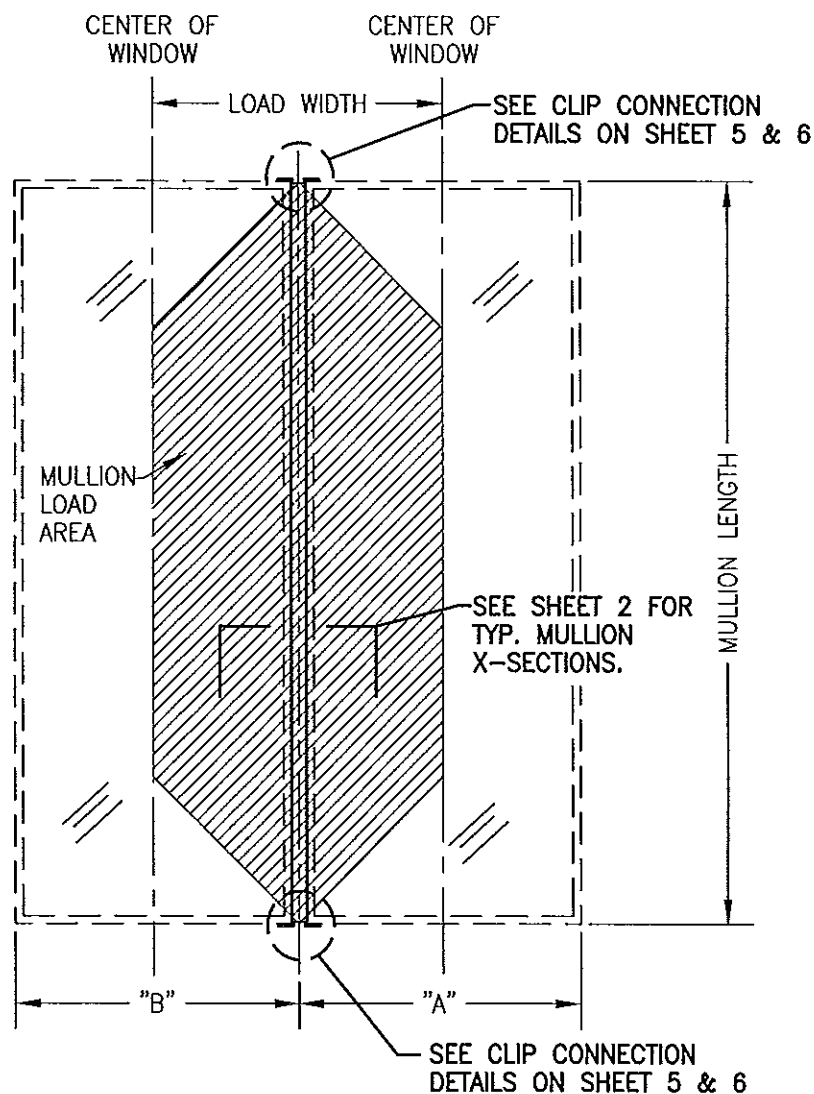
1. Statement letter of conformance, complying with **FBC-2010** and **FBC-5th Edition (2014)**, dated December 18, 2014, issued by W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P.E.
2. Statement letter of no financial interest, dated December 18, 2014, issued by W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P.E.

G. OTHERS

1. Notice of Acceptance No. **11-1021.15**, issued to HWD Acquisition, Inc. dba Hurd Windows & Doors for their Clipped Steel Tube Mullions - Impact, approved on 02/02/12 and expiring on 02/14/17.


Manuel Perez, P.E.
Product Control Examiner
NOA No. 14-1224.02

Expiration Date: February 14, 2017
Approval Date: April 02, 2015



FIXED WINDOW TO FIXED WINDOW

$$\text{LOAD WIDTH} = (A + B)/2$$

NOTE: "FIXED WINDOW" MAY BE A SASH GLAZED FIXED OR A DIRECT GLAZED FIXED WINDOW UNDER SEPERATE APPROVAL.

NOTE: MULLION MAY BE HORIZONTAL OR VERTICAL

GENERAL NOTES (ALL DRAWING SHEETS):

1. DOORS ARE APPROVED UNDER SEPERATE N.O.A. WITH AN ALUMINUM PLATE MULLION AS AN UN-CLIPPED MULLION. CASEMENT WINDOWS & SASH GLAZED FIXED WINDOWS ARE APPROVED UNDER SEPERATE N.O.A. WITH AN UNREINFORCED JAMB TO JAMB MULLION. SEE THE PRODUCTS SPECIFIC N.O.A. FOR USE OF THESE MULLIONS WHEN THEY APPLY.
2. THESE MULLION SYSTEMS HAVE BEEN TESTED, ANALYZED AND APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN ON THESE DRAWINGS.
3. BLOCK AND FRAME OPENINGS MUST BE DESIGNED & CONSTRUCTED TO WITHSTAND WIND LOADS TRANSFERRED BY THE MULLIONS & SUPPORTED WINDOWS/DOORS.
4. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & MAY NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS.
5. THESE MULLION SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
6. THIS MULLION PRODUCT HAS BEEN TESTED IN ACCORDANCE WITH FBC PROTOCOLS TAS-201, TAS-202 & TAS-203 FOR LARGE MISSILE IMPACT, STRUCTURAL & CYCLIC TESTING.
7. ALL PRODUCTS TO BE USED WITH THESE MULLIONS MUST BE ALUMINUM CLAD WOOD FRAMED PRODUCTS MANUFACTURED BY HURD WINDOWS & DOORS AND MUST HOLD A IMPACT OR NON-IMPACT DADE COUNTY NOTICE OF ACCEPTANCE (N.O.A.) AND/OR FLORIDA APPROVAL.

FIXED WINDOW TO FIXED WINDOW TABLE

LENGTH (IN.)	LOAD WIDTH (IN.) $\frac{A+B}{2}$	ALLOWABLE PRESSURES (PSF)	
		4X2X1/4 TUBE	
		CONN. "A"	CONN. "B"
72	72	100.0	100.0
	42	100.0	100.0
	48	100.0	95.2
	54	100.0	89.1
	60	100.0	84.6
	66	100.0	81.5
84	72	100.0	79.3
	30	100.0	100.0
	36	100.0	97.6
	42	100.0	87.0
	48	100.0	79.3
	54	98.9	73.6
96	60	93.1	69.2
	66	88.7	65.9
	72	85.3	63.5
	24	100.0	100.0
	30	100.0	98.3
	36	100.0	84.6
108	42	100.0	75.0
	48	91.4	68.0
	54	84.3	62.7
	60	78.8	58.6
	66	74.5	55.4
	72	71.1	52.9

ALL TUBES SHALL BE A46 STEEL

FIXED WINDOW TO FIXED WINDOW TABLE

LENGTH (IN.)	LOAD WIDTH (IN.) $\frac{A+B}{2}$	ALLOWABLE PRESSURES (PSF)	
		4X2X1/4 TUBE	
		CONN. "A"	CONN. "B"
120	24	100.0	100.0
	30	100.0	87.0
	36	100.0	74.7
	42	88.7	65.9
	48	80.0	59.5
	54	73.4	54.6
132	60	68.3	50.8
	66	64.2	47.7
	72	61.0	45.3
	24	100.0	95.2
	30	100.0	78.1
	36	89.8	66.8
144	42	79.1	58.8
	48	71.1	52.9
	54	65.0	48.4
	60	60.2	44.8
	66	55.0	42.0
	72	50.5	39.7
144	24	100.0	86.5
	30	93.3	70.8
	36	77.7	60.4
	42	66.6	53.1
	48	58.3	47.6
	54	51.8	43.4
144	60	46.6	40.1
	66	42.4	37.4
144	72	38.9	35.3

CONN "A" = CONNECTION METHOD "A". SEE SHEET 5 & 6 FOR DETAIL.

CONN "B" = CONNECTION METHOD "B". SEE SHEET 5 & 6 FOR DETAIL.

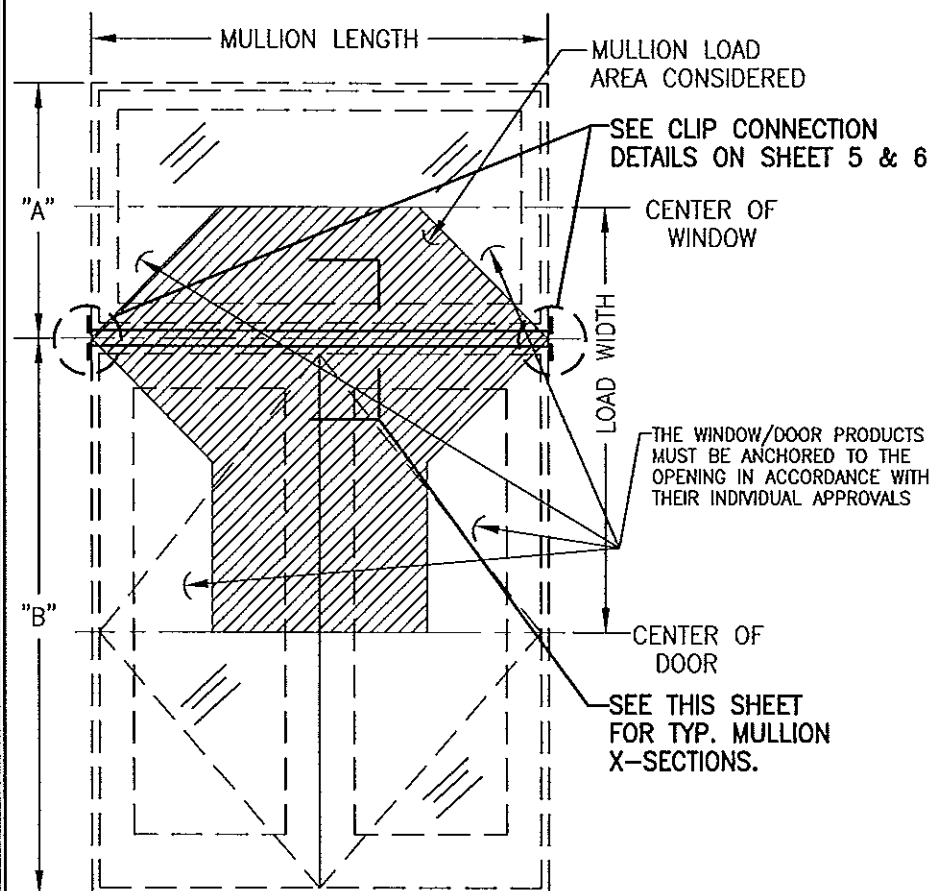
NOTE: TUBE TO TUBE CONNECTION, AS DETAILED ON SHEET 5 & 6, IS ACCEPTABLE FOR ALL CONN. "A" LOADS.

NOTE: INDIVIDUAL UNIT SIZES & SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL "NOTICE OF ACCEPTANCE"

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 14-1224-02
Expiration Date Feb 14, 2017
By *Manuel Arce*
Miami Dade Product Control

THESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUCT SPECIFIED. THEY MAY NOT BE USED FOR THE ASSEMBLY AND/OR INSTALLATION OF ANY OTHER PRODUCT NOR MAY THEY BE USED FOR RATIONAL AND/OR LOCAL APPROVAL OF ANY PRODUCT NOT PRODUCED BY THE MANUFACTURER STATED ON THESE DRAWINGS.

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=24	DATE: 07/24/01
DATE 07/28/05	DATE 10/05/11
DATE 12/18/14	
NO.	REVISION DESCRIPTION
A1	UPDATE TO 2004 CODE
B1	UPDATE TO CURRENT STANDARDS
C1	UPDATE TO CURRENT STANDARDS
DRAWING TITLE CLIPPED IMPACT & NON-IMPACT STEEL TUBE MULLIONS	
MANUFACTURER HWD ACQUISITION, INC. dba HURD WINDOWS & DOORS 575 S. WHELEN AVE. MEDFORD, WI 54451 800-433-4873	
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424	
CERTIFICATION DEC 18 2014	WARREN W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO. 1047B	REV. C
SHEET NO. 1	OF 6



DOUBLE DOOR WITH TRANSOM
LOAD WIDTH = (A + B)/2

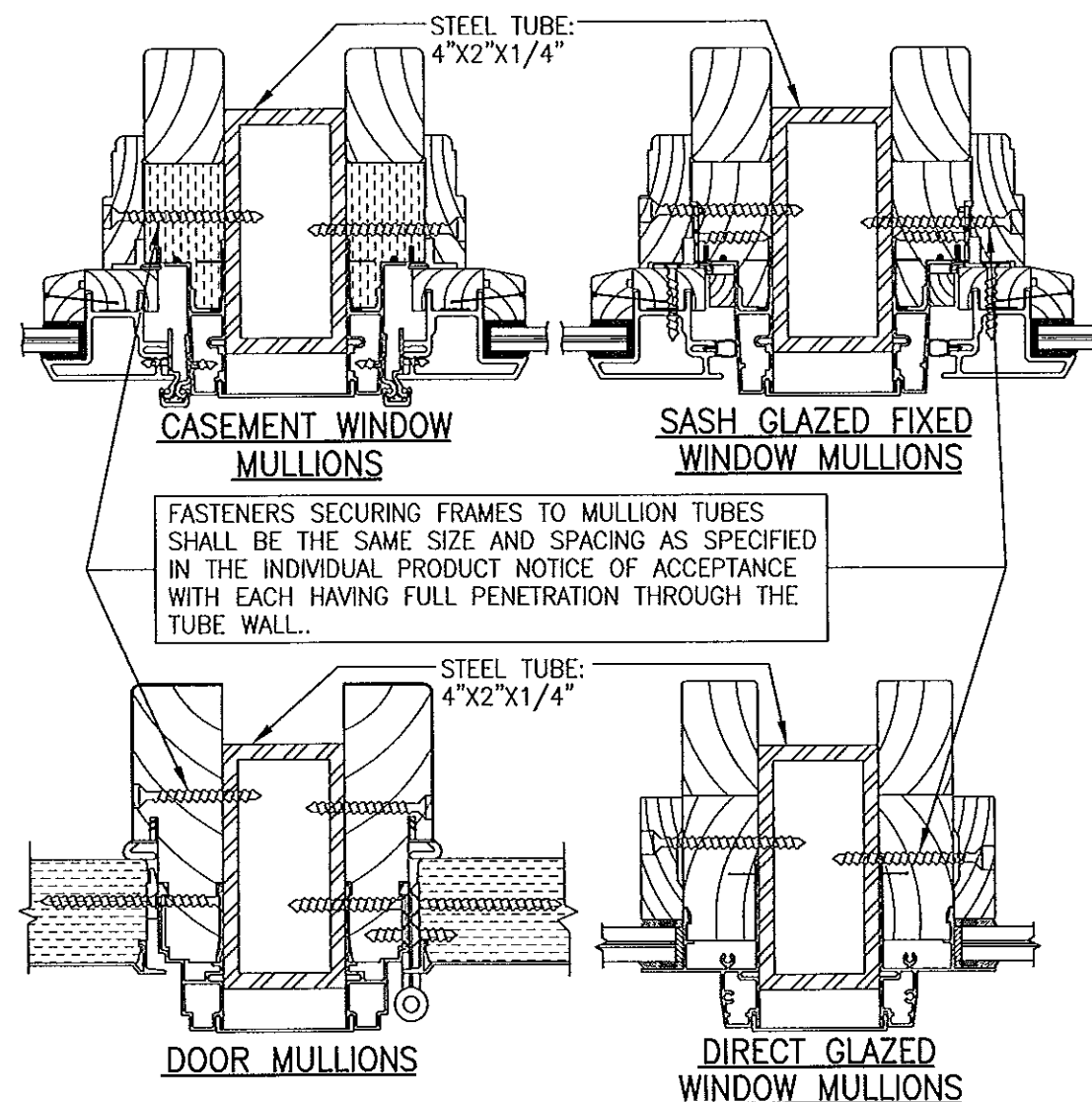
NOTE: "TRANSM" MAY BE A SASH
GLAZED FIXED WINDOW, DIRECT GLAZED
FIXED WINDOW OR A FIXED DOOR
PANEL UNDER SEPERATE APPROVAL.

DOUBLE DOOR WITH TRANSOM			
LENGTH (IN.)	LOAD WIDTH (IN.) $\frac{A+B}{2}$	ALLOWABLE PRESSURES (PSF)	
		4X2X1/4 TUBE	
		CONN. "A"	CONN. "B"
48	78	100.0	100.0
	84	100.0	97.1
54	72	100.0	100.0
	78	100.0	93.0
	84	100.0	86.3
	60	100.0	100.0
60	60	100.0	100.0
	66	100.0	98.9
	72	100.0	90.7
	78	100.0	83.7
	84	100.0	77.7
66	54	100.0	100.0
	60	100.0	98.9
	66	100.0	89.9
	72	100.0	82.4
	78	100.0	76.1
	84	95.0	70.6
72	54	100.0	100.0
	60	100.0	90.7
	66	100.0	82.4
	72	100.0	75.6
	78	93.8	69.7
	84	87.1	64.8
78	48	100.0	100.0
	54	100.0	93.0
	60	100.0	83.7
	66	100.0	76.1
	72	93.8	69.7
	78	86.6	64.4
	84	80.4	59.8
	84	74.6	55.5

ALL TUBES SHALL BE A46 STEEL

CONN "A" = CONNECTION METHOD "A". SEE SHEET 5 & 6 FOR DETAIL.
CONN "B" = CONNECTION METHOD "B". SEE SHEET 5 & 6 FOR DETAIL.
NOTE: TUBE TO TUBE CONNECTION, AS DETAILED ON SHEET 5 & 6, IS
ACCEPTABLE FOR ALL CONN. "A" LOADS.

NOTE: INDIVIDUAL UNIT SIZES & SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL "NOTICE OF ACCEPTANCE"



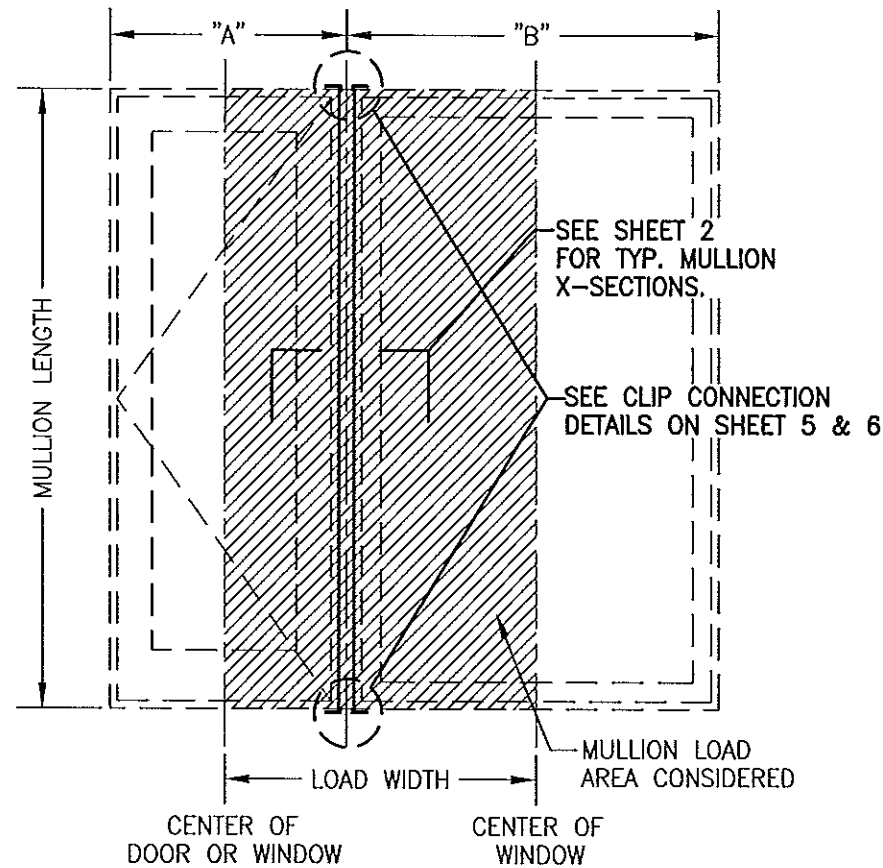
TYPICAL MULLION CONDITIONS

NOTE: PRODUCTS CAN BE INTERMIXED & ARE NOT LIMITED TO THOSE
SHOWN. PRODUCTS USED WITH THE MULLIONS MUST BE ALUMINUM
CLAD WOOD WINDOW/DOOR PRODUCTS MANUFACTURED BY HURD WINDOWS
& DOORS & MUST HOLD A MIAMI-DADE COUNTY "NOTICE OF ACCEPTANCE"
OR FLORIDA APPROVAL

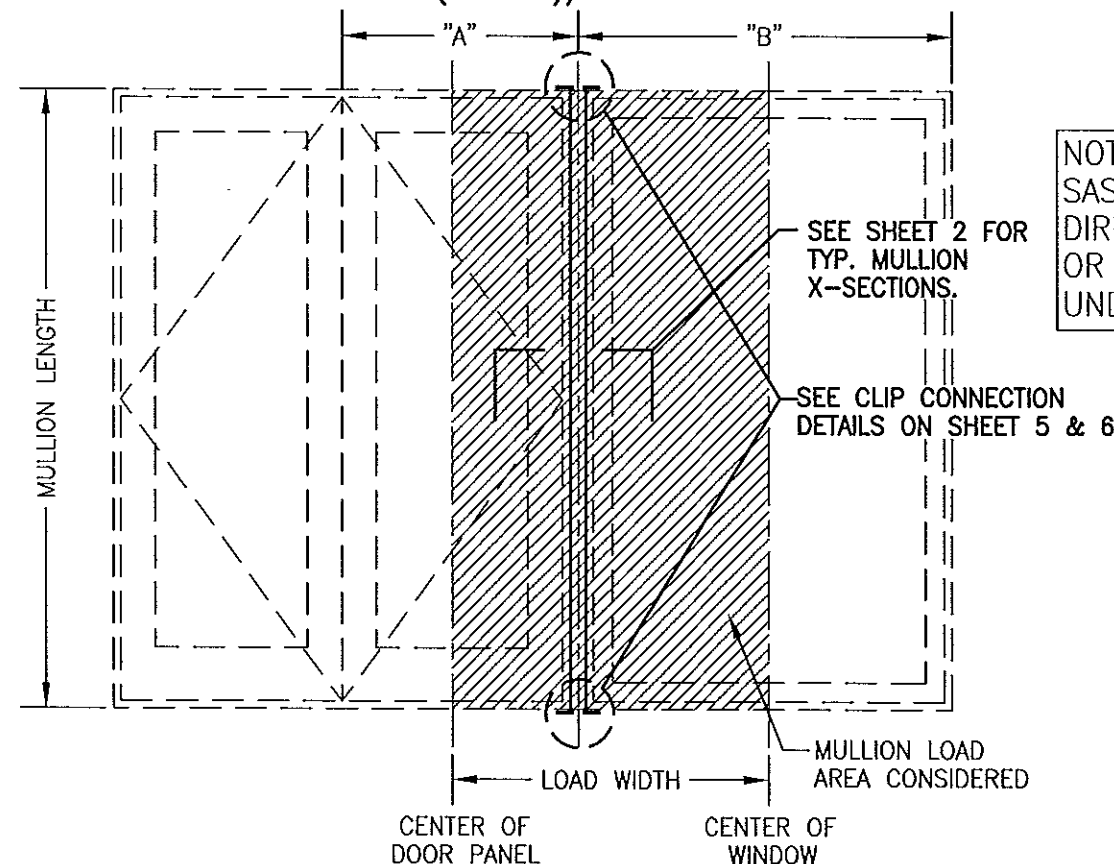
PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 14-1224-02
Expiration Date Feb. 14, 2017
By Manuel Perez
Miami-Dade Product Control

A circular professional engineer seal for Warren W. Schaefer. The outer ring contains the text "WARREN W. SCHAEFER" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by stars. The inner circle contains the text "LICENSE" on the left, "No. 44135" in the center, and "STATE OF FLORIDA" on the right, also separated by stars. The seal is stamped in blue ink on a white background.

DRAWING NO. 1047B		REV. C	
SHEET NO. 2 OF 6			
<div><div><div>CERTIFICATION</div><div>DEC 18 2014</div><div>WARREN W. SCHAEFER, P.E.</div></div></div>			
<div><div><div>DRAWING TITLE</div><div>CLIPPED IMPACT & NON-IMPACT STEEL TUBE MULLIONS</div></div><div><div>CONSULTANTS</div><div>W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424</div></div><div><div>MANUFACTURER</div><div>HWD ACQUISITION, INC. dba HURD WINDOWS & DOORS 575 S. WHELEN AVE. MEDFORD, WI 54451 800-433-4873</div></div></div>			
NO.	REVISION DESCRIPTION	BY	DATE
DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1=24	DATE: 07/24/01		



**SINGLE DOOR OR CASEMENT WITH SIDELIGHT,
DOOR TO DOOR OR CASEMENT TO CASEMENT**
LOAD WIDTH = (A + B)/2



DOUBLE DOOR W/SIDELIGHT OR DOUBLE DOOR TO DOOR
LOAD WIDTH = (A + B)/2

NOTE: "SIDELIGHT" MAY BE A SASH GLAZED FIXED WINDOW, A DIRECT GLAZED FIXED WINDOW, OR A FIXED DOOR PANEL UNDER SEPERATE APPROVAL.

DOOR OR CASEMENT WITH SIDELIGHT			
LENGTH (IN.)	LOAD WIDTH (IN.)	ALLOWABLE PRESSURES (PSF)	
		4X2X1/4 TUBE	
		CONN. "A"	CONN. "B"
48	54	100.0	100.0
	60	100.0	95.2
54	48	100.0	100.0
	54	100.0	94.0
	60	100.0	84.6
60	42	100.0	100.0
	48	100.0	95.2
	54	100.0	84.6
66	36	100.0	100.0
	42	100.0	98.9
	48	100.0	86.5
72	54	100.0	76.9
	60	93.1	69.2
	36	100.0	100.0
	42	100.0	90.7
72	48	100.0	79.3
	54	94.8	70.5
	60	85.3	63.5

DOOR OR CASEMENT WITH SIDELIGHT			
LENGTH (IN.)	LOAD WIDTH (IN.)	ALLOWABLE PRESSURES (PSF)	
		4X2X1/4 TUBE	
		CONN. "A"	CONN. "B"
78	30	100.0	100.0
	36	100.0	97.6
	42	100.0	83.7
	48	98.5	73.2
	54	87.5	65.1
80	60	78.8	58.6
	30	100.0	100.0
	36	100.0	95.2
	42	100.0	81.6
	48	96.0	71.4
84	54	85.3	63.5
	60	76.8	57.1
	30	100.0	100.0
	36	100.0	90.7
	42	100.0	77.7
92	48	91.4	68.0
	54	81.3	60.4
	60	73.1	54.4
	24	100.0	100.0
	30	100.0	99.3
96	36	100.0	82.8
	42	95.4	71.0
	48	83.5	62.1
	54	74.2	55.2
	60	66.8	49.7
	24	100.0	100.0
	30	100.0	95.2
	36	100.0	79.3
	42	91.4	68.0
	48	80.0	59.5
	54	71.1	52.9
	60	64.0	47.6

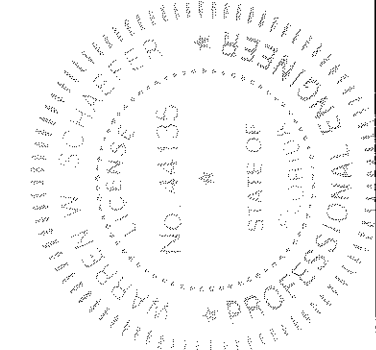
ALL TUBES SHALL BE A46 STEEL

NOTE: INDIVIDUAL UNIT SIZES & SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL "NOTICE OF ACCEPTANCE"

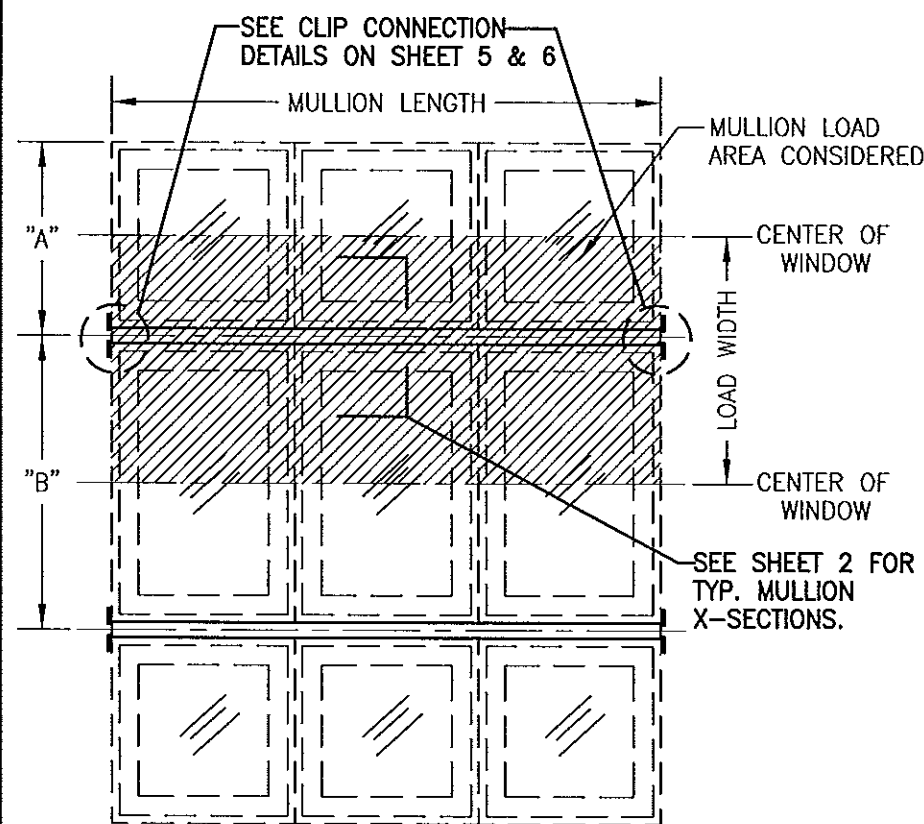
CONN "A" = CONNECTION METHOD "A". SEE SHEET 5 & 6 FOR DETAIL.
CONN "B" = CONNECTION METHOD "B". SEE SHEET 5 & 6 FOR DETAIL.

NOTE: TUBE TO TUBE CONNECTION, AS DETAILED ON SHEET 5 & 6, IS ACCEPTABLE FOR ALL CONN. "A" LOADS.

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 14-1224.02
Expiration Date Feb 14, 2017
By *Manuel Perez*
Miami/Dade Product Control



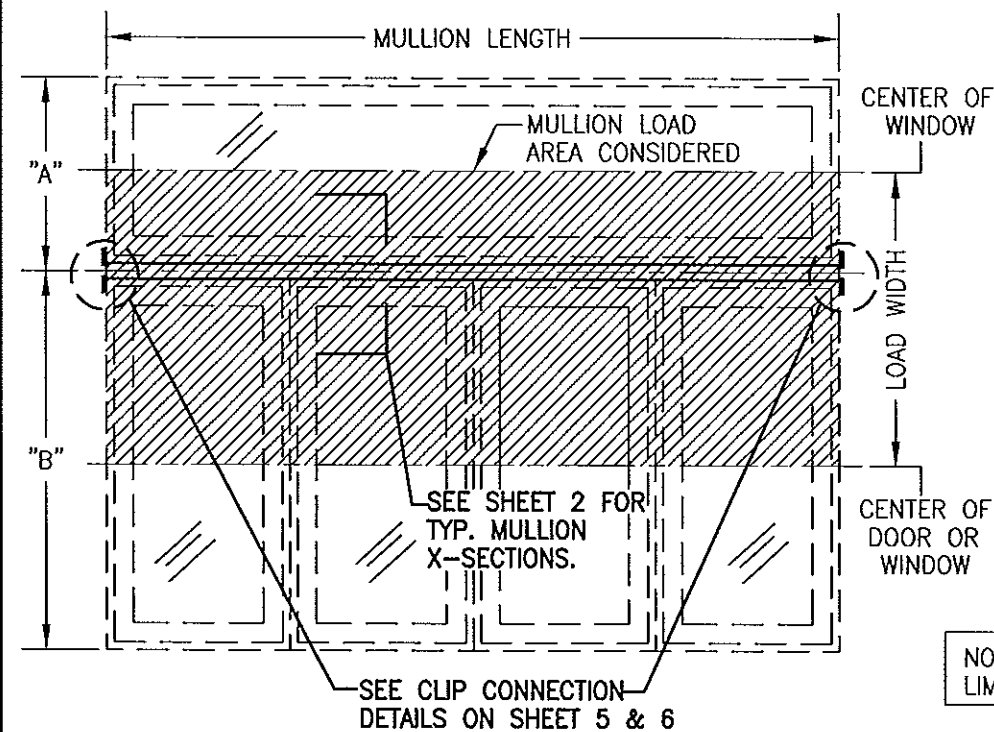
DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1=24		DATE: 07/24/01	
NO.	REVISION	DESCRIPTION	DATE
CLIPPED IMPACT & NON-IMPACT STEEL TUBE MULLIONS			
CONSULTANTS W. W. SCHAEFFER ENGINEERING & CONSULTING, P.A. (CA 6809)		MANUFACTURER HWD ACQUISITION, INC. dba HURD WINDOWS & DOORS 575 S. WHELEN AVE. MEDFORD, WI 54451 800-433-4873	
7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		WARREN W. SCHAEFFER, P.E. P.E. NO. 44135	
CERTIFICATION DEC 18 2014		DRAWING NO. 1047B SHEET NO. 3 OF 6	



MULTIPLE WINDOWS (HORIZONTAL MULLION)

$$\text{LOAD WIDTH} = (A + B)/2$$

MULLIONS MAY BE HORIZONTAL OR VERTICAL



MULTIPLE WINDOWS/DOORS WITH TRANSOM

$$\text{LOAD WIDTH} = (A + B)/2$$

TRANSOM MAY BE SINGLE OR MULTIPLE WINDOWS

MULTIPLE WINDOWS/DOORS			
LENGTH (IN.)	LOAD WIDTH (IN.)	ALLOWABLE PRESSURES (PSF)	
		4X2X1/4 TUBE	
		CONN. "A"	CONN. "B"
36	72	100.0	100.0
	78	100.0	97.6
	60	100.0	100.0
42	66	100.0	98.9
	72	100.0	90.7
	78	100.0	83.7
	54	100.0	100.0
48	60	100.0	95.2
	66	100.0	86.5
	72	100.0	79.3
	78	98.5	73.2
	48	100.0	100.0
54	54	100.0	94.0
	60	100.0	84.6
	66	100.0	76.9
	72	94.8	70.5
	78	87.5	65.1
	42	100.0	100.0
60	48	100.0	95.2
	54	100.0	84.6
	60	100.0	76.2
	66	93.1	69.2
	72	85.3	63.5
	78	78.8	58.6
	36	100.0	100.0
72	42	100.0	90.7
	48	100.0	79.3
	54	94.8	70.5
	60	85.3	63.5
	66	77.6	57.7
	72	71.1	52.9
	78	65.6	48.8
	30	100.0	100.0
84	36	100.0	90.7
	42	100.0	77.7
	48	91.4	68.0
	54	81.3	60.4
	60	73.1	54.4
	66	66.5	49.5
	72	61.0	45.3
	78	56.3	41.8

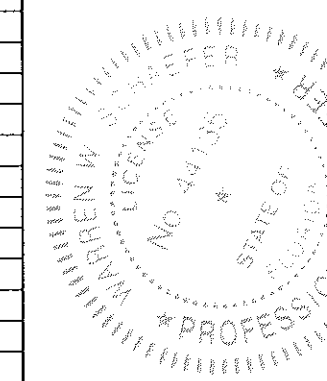
ALL TUBES SHALL BE A46 STEEL

NOTE: INDIVIDUAL UNIT SIZES & SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL "NOTICE OF ACCEPTANCE"

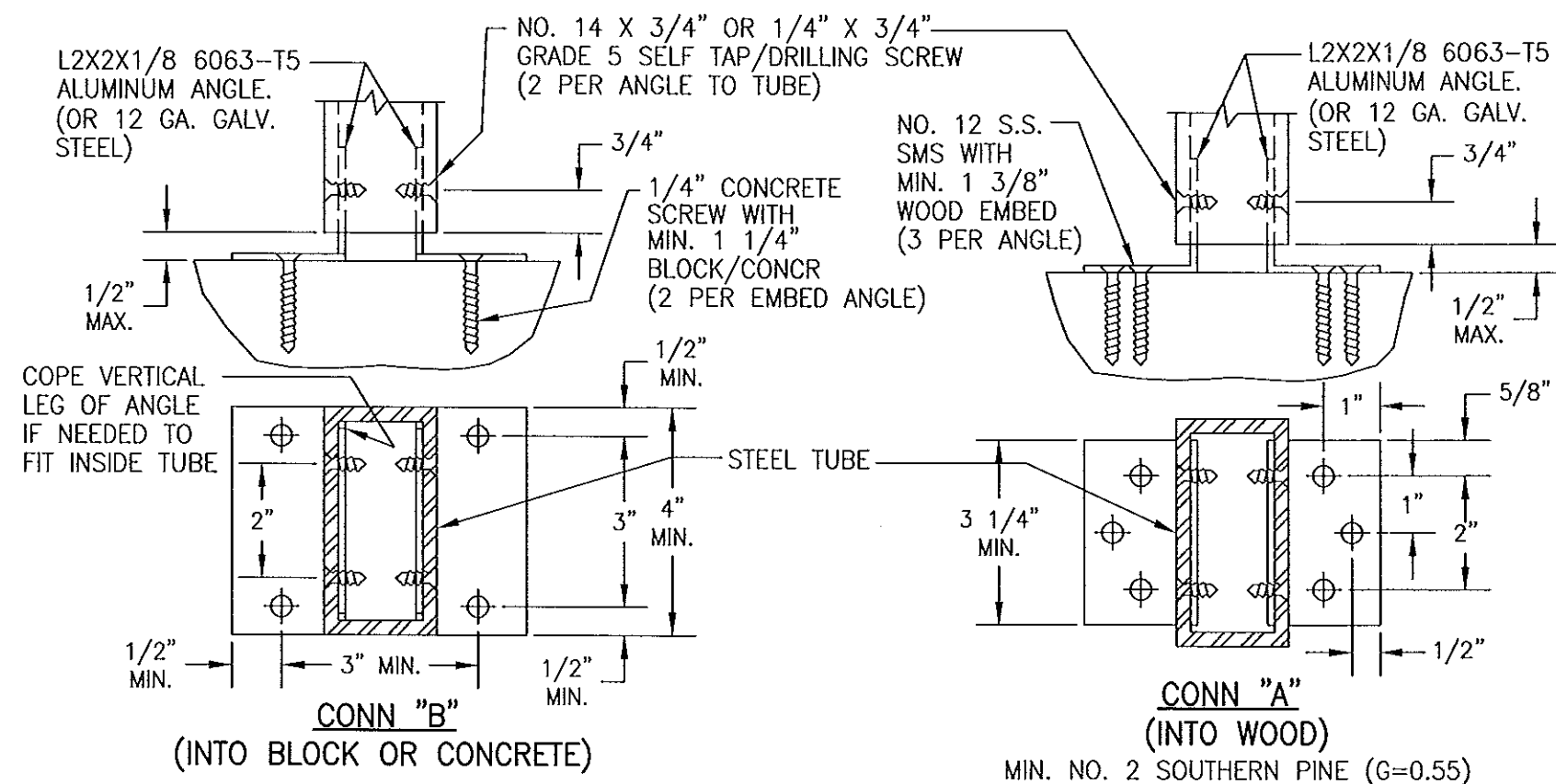
MULTIPLE WINDOWS/DOORS			
LENGTH (IN.)	LOAD WIDTH (IN.)	ALLOWABLE PRESSURES (PSF)	
		4X2X1/4 TUBE	
		CONN. "A"	CONN. "B"
96	24	100.0	100.0
	30	100.0	95.2
	36	100.0	79.3
	42	91.4	68.0
	48	80.0	59.5
	54	71.1	52.9
	60	64.0	47.6
	66	58.2	43.3
	72	53.3	39.7
	78	49.2	36.6
108	24	100.0	100.0
	30	100.0	84.6
	36	94.8	70.5
	42	81.3	60.4
	48	71.1	52.9
	54	63.2	47.0
	60	56.9	42.3
	66	51.7	38.5
	72	47.4	35.3
	78	43.8	32.5
	24	100.0	95.2
	30	100.0	76.2
120	36	85.3	63.5
	42	73.1	54.4
	48	64.0	47.6
	54	56.9	42.3
	60	51.2	38.1
	66	46.5	34.6
	72	42.7	31.7
	78	39.4	29.3
	24	100.0	86.5
	30	93.1	69.2
132	36	77.6	57.7
	42	66.5	49.5
	48	58.2	43.3
	54	51.7	38.5
	60	46.5	34.6
	66	42.3	31.5
	72	38.8	28.8
	78	35.8	26.6
	24	100.0	79.3
	30	85.3	63.5
144	36	71.1	52.9
	42	61.0	45.3
	48	53.3	39.7
	54	47.4	35.3
	60	42.7	31.7
	66	38.8	28.8
	72	35.6	26.4
	78	32.8	24.4

CONN "A" = CONNECTION METHOD "A". SEE SHEET 5 & 6 FOR DETAIL.
 CONN "B" = CONNECTION METHOD "B". SEE SHEET 5 & 6 FOR DETAIL.
 NOTE: TUBE TO TUBE CONNECTION, AS DETAILED ON SHEET 5 & 6, IS ACCEPTABLE FOR ALL CONN. "A" LOADS.

PRODUCT REVISED
 as complying with the Florida
 Building Code
 Acceptance No. 14-1234.02
 Expiration Date Feb 14, 2017
 By *Manuel Ferraz*
 Miami Dade Product Control

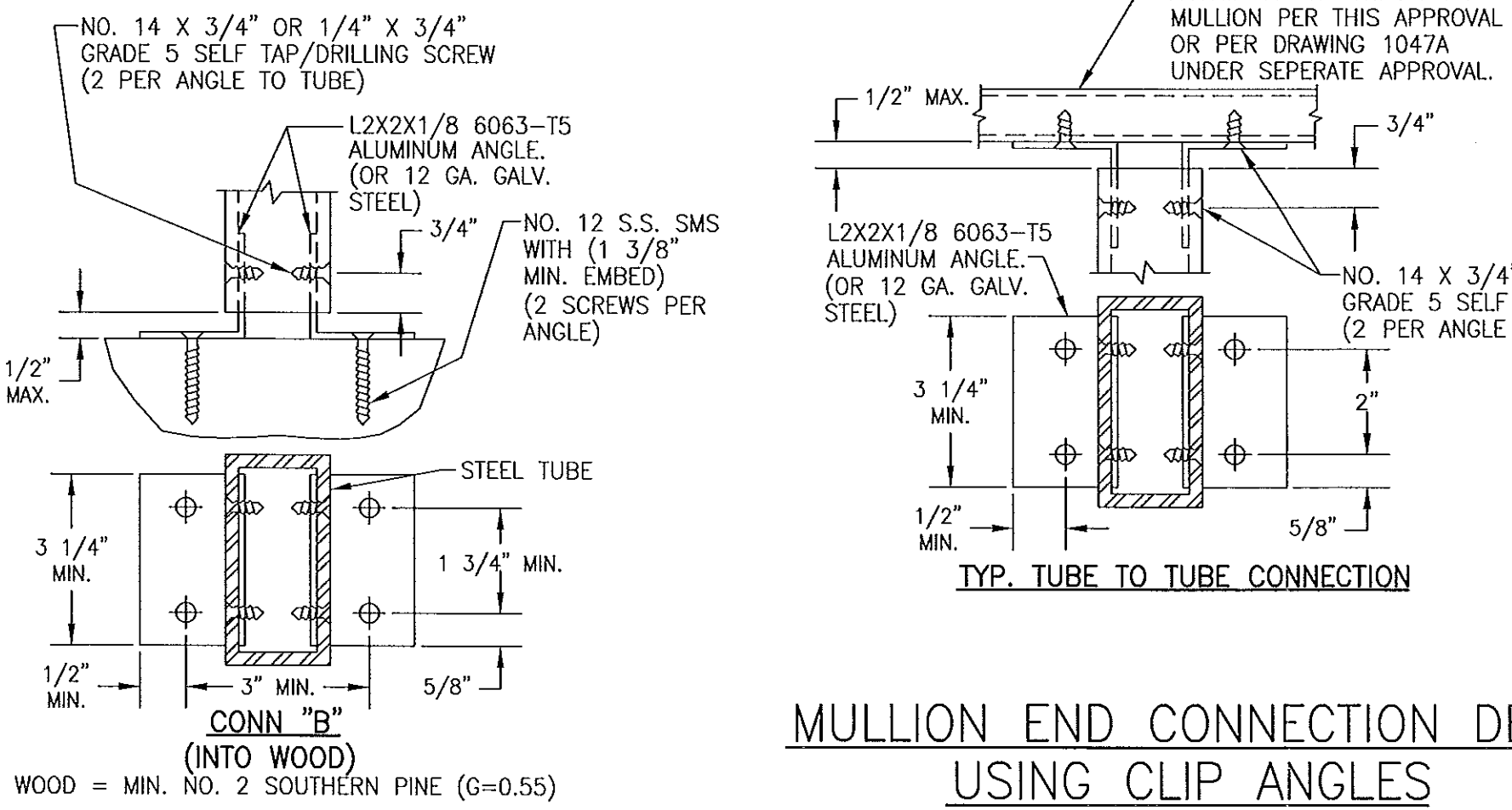


DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1=24		DATE: 07/24/01	
NO.	DATE	BY	REVISION DESCRIPTION
DRAWING TITLE CLIPPED IMPACT & NON-IMPACT STEEL TUBE MULLIONS			
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)		MANUFACTURER HWD ACQUISITION, INC. dba HURD WINDOWS & DOORS 575 S. WHELEN AVE. MEDFORD, WI 54451 800-433-4873	
7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424			
CERTIFICATION DEC 18 2014			
DRAWING NO. 1047B		REV. C	
SHEET NO. 4		OF 6	



NOTE: CLIPS MAY BE PLACED INSIDE OR OUTSIDE OF THE TUBE.

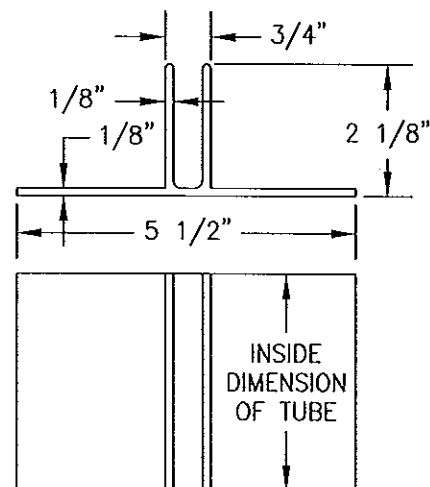
FASTENER EDGE DISTANCE REQUIRED (TO WOOD/CONCR./BLOCK)	
(1) 1/4" CONCRETE SCREWS	2 1/4"
NO. 12 SMS OR WOOD SCREWS	3/4"
(1) CONCRETE SCREWS SHALL BE ELCO ULTRACONS, ELCO CRETE-FLEX, OR HILTI KWIK-CON II (HARDENED STEEL OR S.S.).	



MULLION END CONNECTION DETAILS USING CLIP ANGLES

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 14-1224-02
Expiration Date Feb 14, 2017
By *Manuel Jiro*
Miami/Dade Product Control

DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1=3		DATE: 07/24/01	
DATE	BY	REVISION	DESCRIPTION
NO.			
DRAWING TITLE CLIPPED IMPACT & NON-IMPACT STEEL TUBE MULLIONS			
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)		MANUFACTURER HWD ACQUISITION, INC. dba HURD WINDOWS & DOORS 575 S. WHELEN AVE. MEDFORD, WI 54451 800-433-4873	
7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		WARREN W. SCHAEFER, P.E. P.E. NO. 44135	
CERTIFICATION DEC 18 2014		DRAWING NO. 1047B	
		REV. C	
SHEET NO. 5		OF 6	

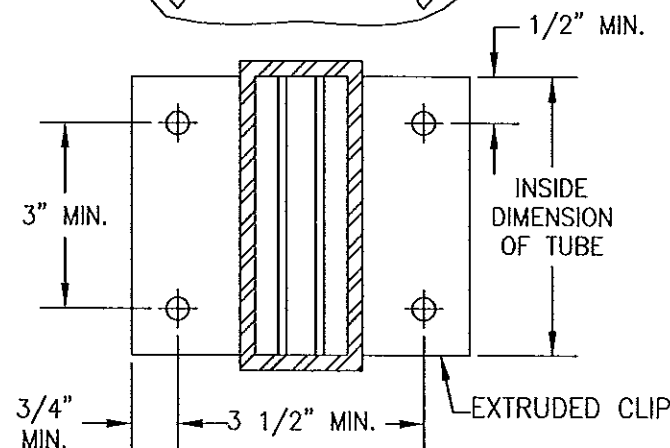


EXTRUDED CLIP 6063-T5 ALUMINUM

INSTALLATION INSTRUCTION:

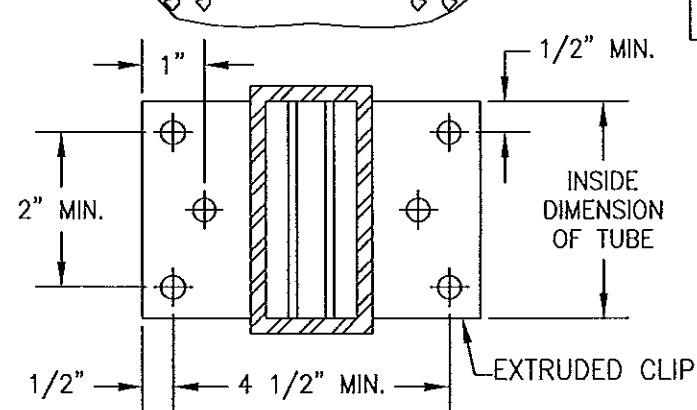
1. SLIP CLIP INTO TUBE (CLIP MUST BE CUT TO THE INSIDE DIMENSION OF THE TUBE & BE CENTERED WITH THE TUBE). NOTE THAT NO SCREWING OF TUBE TO CLIP IS REQUIRED.
2. SECURE CLIP TO STRUCTURE USING FASTENING METHOD DESCRIBED WITH EACH CONNECTION TYPE "A" & "B" AND THE APPLICABLE OPTION CONSIDERING ALL DIMENSION REQUIREMENTS SPECIFIED AS MIN & MAX.

1/4" CONCRETE SCREWS
WITH MIN. 1 1/4"
BLOCK/CONCR
EMBED (2 PER
CLIP LEG)



CONN "B" (INTO BLOCK OR CONCRETE) IF REQUIRED TO FIT INSIDE A 4" TUBE, THE VERTICAL LEGS MAY BE TRIMMED TO FIT INSIDE THE TUBE.

NO. 12 S.S.
SMS WITH
MIN. 1 3/8"
WOOD EMBED
(3 PER CLIP
LEG)



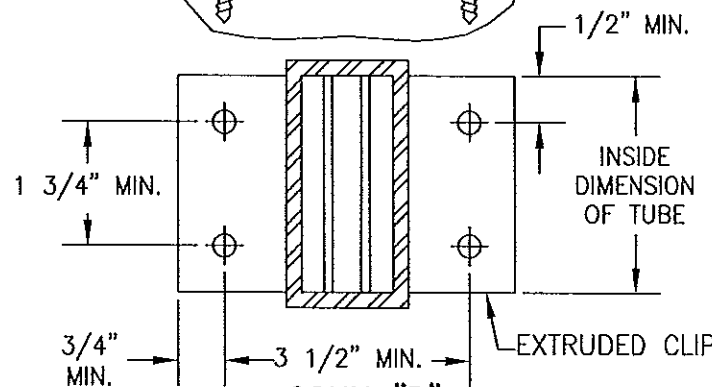
CONN "A" (INTO WOOD) MIN. NO. 2 SOUTHERN PINE (G=0.55)

FASTENER EDGE DISTANCE REQUIRED (TO WOOD/CONCR./BLOCK)

(1) 1/4" CONCRETE SCREWS	2 1/4"
NO. 12 SMS OR WOOD SCREWS	3/4"

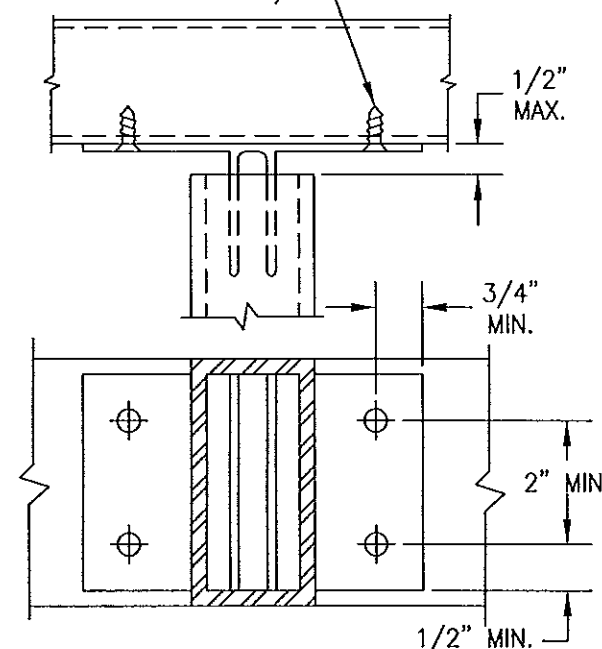
(1) CONCRETE SCREWS SHALL BE ELCO
ULTRACONS, ELCO CRETE-FLEX, OR HILTI
KWIK-CON II (HARDENED STEEL OR S.S.).

NO. 12 S.S. SMS
WITH (1 3/8"
MIN. EMBED)
(2 SCREWS PER
CLIP LEG)



CONN "B" (INTO WOOD) WOOD = MIN. NO. 2 SOUTHERN PINE (G=0.55)

NO. 14 X 3/4" OR 1/4" X 3/4"
GRADE 5 SELF TAP/DRILLING SCREW
(2 PER CLIP LEG INTO TUBES)



TYP. TUBE TO TUBE CONNECTION

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 14-1774-02
Expiration Date Feb 14, 2017
By *Manuel Perez*
Miami Dade Product Control

MULLION END CONNECTION DETAILS USING EXTRUDED CLIP

DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1=3		DATE: 07/24/01	
NO.	DATE	BY	REVISION DESCRIPTION
DRAWING TITLE CLIPPED IMPACT & NON-IMPACT STEEL TUBE MULLIONS			
MANUFACTURER HWD ACQUISITION, INC. dba HURD WINDOWS & DOORS 575 S. WHELEN AVE. MEDFORD, WI 54451 800-433-4873		CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE 561-744-3424	
CERTIFICATION DEC 18 2014		P.E. NO. 44135 WARREN W. SCHAEFER, P.E.	
DRAWING NO. 1047B		REV. C	
SHEET NO. 6		OF 6	